



# San Francisco Bicycle Plan

JUNE 26, 2009

**SFMTA**

Municipal Transportation Agency

**This project was funded through a Transportation Development Act Article 3 Grant, with oversight from the California Traffic Control Devices Committee.**



**Additional funds were provided by Transportation Development Act Article 3 Grants.**

**Public outreach and community planning for the San Francisco Bicycle Plan was funded by a Caltrans Community Based Planning Grant administered by the San Francisco County Transportation Authority to the San Francisco Bicycle Coalition.**



# ACKNOWLEDGEMENTS

## **MAYOR**

Gavin Newsom

## **SAN FRANCISCO BOARD OF SUPERVISORS**

Eric Mar, District 1  
Michela Alioto-Pier, District 2  
David Chiu, District 3, Board President  
Carmen Chu, District 4  
Ross Mirkarimi, District 5  
Chris Daly, District 6  
Sean Elsbernd, District 7  
Bevan Dufty, District 8  
David Campos, District 9  
Sophie Maxwell, District 10  
John Avalos, District 11

## **FORMER SUPERVISORS**

Tom Ammiano  
Fiona Ma  
Jake McGoldrick  
Aaron Peskin  
Gerardo Sandoval

## **SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY (SFMTA) BOARD OF DIRECTORS**

Tom Nolan, Chairman  
Rev. Dr. James McCray Jr., Vice Chairman  
Cameron Beach  
Shirley Breyer Black  
Malcolm Heinecke  
Jerry Lee  
Bruce Oka  
Roberta Boomer, SFMTA Board Secretary

## **FORMER SFMTA BOARD MEMBERS**

Wil Din  
Michael Kasolas

Peter Mezey  
Leah Shahum  
Cleopatra Vaughns

**SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY STAFF (SFCTA)**

José Luis Moscovich, Executive Director  
Maria Lombardo, Deputy Director

Chad Rathman  
Michael Schwartz  
Ben Stupka

**FORMER SFCTA STAFF**

Adam Leigland  
Ian Moore  
Melissa Pelkey

**SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY (SFMTA) STAFF**

Nathaniel P. Ford Sr., Executive Director and Chief Executive Officer  
Debra A. Johnson, Chief of Staff and Director of Administration  
Bond M. Yee, Director of Parking and Traffic  
Carter Rohan, Senior Director of Transportation Planning and Development  
Amit K. Ghosh, Deputy Director of Transportation Planning and Development  
Jack Fleck, City Traffic Engineer  
Jerry Robbins, Transportation Planning Manager  
Timothy Papandreou, Assistant Deputy Director of Transportation Planning and Development  
Peter Albert, Manager of Urban Planning Initiatives Program  
Bridget Smith, Manager Public Life Planning Section  
Oliver J. Gajda, Bicycle Program Manager

Nick Carr  
Damon Curtis  
Ryan Dodge  
Jose Guadamuz  
Heath Maddox  
Jessica Manzi  
Charles Rivasplata  
Raoul Roque  
Mike Sallaberry  
James Shahamiri  
Deirdre Weinberg  
Dustin White

**FORMER SFMTA STAFF**

David Carcia  
Bill Lieberman  
Peter Tannen

**OVERSIGHT COMMITTEE\***

David Alumbaugh, San Francisco Planning Department  
Maria Ayerdi, San Francisco Office of the Mayor  
Jose Cisneros, San Francisco Municipal Transportation Agency  
Maria Lombardo, San Francisco County Transportation Authority  
Leah Shahum, San Francisco Bicycle Coalition  
Dave Snyder, Transportation for a Livable City\*

**TECHNICAL ADVISORY COMMITTEE\***

Paul Bignardi, San Francisco Municipal Transportation Agency  
David Burch, Bay Area Air Quality Management District  
Suany Chough, San Francisco Municipal Transportation Agency  
Mike Ellzey, Golden Gate Park Concourse Authority  
Kevin Gonzalvez, San Francisco Fire Department  
Dan Hodapp, Port of San Francisco  
Adam Leigland, San Francisco County Transportation Authority  
Damon Louie, San Francisco Recreation and Parks Department  
Tom Martin, San Francisco Police Department  
Ricardo Olea, San Francisco Municipal Transportation Agency  
Leah Shahum, San Francisco Bicycle Coalition  
Peter Straus, San Francisco Municipal Transportation Agency  
Joshua Switzky, San Francisco Planning Department  
Laura Thompson, ABAG Bay Trail Program  
Andrew Thornley, San Francisco Bicycle Advisory Committee  
Laura Timothy, BART

**SAN FRANCISCO BICYCLE ADVISORY COMMITTEE (BAC) BICYCLE PLAN REVIEW  
TASK FORCE \*\***

Casey Allen  
Marc Brandt  
Jerry Ervin  
Richard Tilles  
Jake Wegmann

**SAN FRANCISCO BICYCLE ADVISORY COMMITTEE (BAC)**

Andy Bindman (District 1)  
Richard Tilles, Secretary (District 2)  
Marc Brandt (District 3)

Jared Washkowitz (District 4)  
Susan King (District 5)  
Jake Wegmann (District 6)  
Bert Hill, Chair (District 7)  
Jerry Ervin (District 8)  
Vacant (District 9)  
Rufus J. Davis, Jr., Vice Chair (District 10)  
Casey Allen (District 11)

### **FORMER BAC MEMBERS**

Frank Chan  
Lisa Estrella  
Francisco Hernández  
Mark Hotsenpiller  
Lionel Shaw  
Hitesh Soneji

### **SAN FRANCISCO BICYCLE COALITION**

Mary Brown  
David Gartner  
Amy Panella  
Leah Shahum  
Andrew Thornley  
Thank you to the numerous SFBC volunteers.

### **CONSULTANT TEAM**

#### **Alta Planning + Design**

Mia Birk, Principal-In-Charge  
Ian Moore, Project Manager  
Arif Khan, Planner  
Lev Anderson, Planner\*  
Daniel Lerch, Assistant Planner

#### **Parisi Associates**

David Parisi

#### **Pittman Associates**

Donna Pittman

\* Denotes the agency representative involved in Bicycle Plan at the time of the first adoption of the 2005 Bicycle Plan

\*\* Denotes the BAC Task Force involved in the review of the Bicycle Plan at the time of the adoption of the 2009 Bicycle Plan

# CONTENTS

- EXECUTIVE SUMMARY .....i
  
- INTRODUCTION ..... Intro-1
  - Overall Plan Goal and Objectives ..... Intro-1
  - San Francisco's Commitment to Bicycling ..... Intro-1
  - Plan Development..... Intro-2
  - San Francisco Land Use and Demographics..... Intro-4
  - The Planning Process..... Intro-11
  - Agency Responsibility for Plan Implementation ..... Intro-12
  - Consistency With State Requirements for Bicycle Plans ..... Intro-16
  - Contents of this Plan..... Intro-17
  
- 1. BICYCLE ROUTE NETWORK..... 1-1
  - Bicycle Route Network Goal and Objectives..... 1-1
  - Introduction ..... 1-1
  - Existing Bicycle Route Network ..... 1-3
  - Recommended Improvements to the Bicycle Route Network ..... 1-11
  - Bicycle and Transit Policy ..... 1-19
  - Additional City Policies..... 1-24
  - Bicycle Route Network Improvements - Steps for Implementation ..... 1-27
  - Bicycle Route Network Maintenance Standards ..... 1-31
  
- 2. BICYCLE PARKING ..... 2-1
  - Bicycle Parking Goal and Objectives ..... 2-1
  - Introduction ..... 2-1
  - Bicycle Parking Policies ..... 2-4
  - Residential Buildings..... 2-5
  - Parking Garages ..... 2-6
  - City-Owned and Leased Buildings ..... 2-7
  - Commercial and Industrial Buildings..... 2-8
  - Other On-Site Bicycle Support Facilities ..... 2-10
  - Review of Bicycle Parking Classes ..... 2-10
  - Bicycle Rack Placement ..... 2-13
  - Attended Bicycle Parking ..... 2-16

	Bicycle Parking Outreach.....	2-17
3.	TRANSIT AND BRIDGE ACCESS.....	3-1
	Transit and Bridge Access Goals and Objectives .....	3-1
	Introduction .....	3-1
	Bicycle Access to Transit .....	3-2
	Bicycle Access to Bridges.....	3-12
4.	EDUCATION.....	4-1
	Education Goal and Objectives.....	4-1
	Introduction .....	4-1
	Educating the General Public .....	4-2
	Bicycle Safety Outreach.....	4-3
	Targeted Bicycle Education .....	4-7
	Program Evaluation .....	4-10
5.	ENFORCEMENT AND SAFETY.....	5-1
	Enforcement and Safety Goal and Objectives .....	5-1
	Introduction .....	5-1
	Analysis of Motorist and Bicyclist Moving Violations .....	5-2
	Enforcement and Safety Action Framework.....	5-7
6.	PROMOTION.....	6-1
	Promotion Goal and Objectives .....	6-1
	Introduction .....	6-1
	Promotion of Bicycle Route Network.....	6-2
	Develop City-Sponsored Bicycle Promotion .....	6-3
	Bicycle Events.....	6-4
	City Staff Programs and Policies for Bicycle Use.....	6-5
	Bicycle Information Resources: MTC 511 Program .....	6-6
	Bicycle-Related Businesses.....	6-7
	Bicycle Sharing .....	6-7
7.	GENERAL PLAN AMENDMENTS, ENVIRONMENTAL REVIEW, AND CITYWIDE COORDINATION .....	7-1
	General Plan Amendments, Environmental Review, and Citywide Coordination Goal and Objectives.....	7-1
	Introduction .....	7-1

Recommended Transportation Code Amendments .....	7-6
Coordination with Other Jurisdictions within San Francisco.....	7-8
8. BICYCLE FUNDING .....	8-1
Bicycle Funding Goal and Objective .....	8-1
Introduction .....	8-1
Funding Bicycle Activities .....	8-4
APPENDIX 1. BICYCLE ROUTE NETWORK MAP.....	APP 1-1
APPENDIX 2. BICYCLE ROUTE NETWORK .....	APP 2-1
APPENDIX 3. GLOSSARY OF TERMS .....	APP 3-1

## TABLES

Int Table 1: Journey to Work Data .....	Intro-7
Int Table 2: Travel Time to Work Data .....	Intro-8
Int Table 3: Agency Responsibility .....	Intro-13
Int Table 4: Bicycle Transportation Account (BTA) Requirements Checklist .....	Intro-17
Table 1-1: Existing Bicycle Route Network Facilities .....	1-3
Table 1-2: Changes to the Existing Bicycle Route Network – Network Relocations .....	1-8
Table 1-3: Changes to the Existing Bicycle Route Network - Removal of Interim 1997 Network Designations .....	1-9
Table 1-4: Changes to the Existing Bicycle Route Network – Addition of Network Designation to Existing Facilities .....	1-10
Table 2-1: Required Number of Bicycle Parking Spaces in Garages for Residential Uses...	2-5
Table 2-2: Required Number of Bicycle Parking Spaces in Parking Garages.....	2-7
Table 2-3: Required Number of Bicycle Parking Spaces in City-Owned and Leased Buildings	2-8
Table 2-4: Required Bicycle Parking Facilities for New and Renovated Commercial Buildings	2-9
Table 2-5: Showers Required in New Buildings .....	2-10
Table 2-6: Additional Rack Placement Guidelines .....	2-15
Table 3-1: BART’s Recommended Bicycle Access and Parking Improvements.....	3-5
Table 3-2: Bicycle Access on the Golden Gate Bridge .....	3-12
Table 5-1: Bicycle/Automobile Collisions in San Francisco Where Motorists Were Most Frequently Assigned Fault .....	5-4
Table 5-2: Bicycle/Automobile Collisions in San Francisco Where Bicyclists Were Most Frequently Assigned Fault .....	5-6
Table 5-3: Summary: Most Frequent Bicycle-Related Collisions .....	5-6
Table 5-4: Summary: Injury Related Bicycle Collisions in San Francisco by CVC Violation	5-14
Table 8-1: Overview of Bicycle Funding Sources.....	8-2

## FIGURES

Int Figure 1: San Francisco Overview .....	Intro-6
Int Figure 2: Bicycle Mode Split by Census Block Group .....	Intro-10
Figure 1-1: Typical Class I Facility – Bicycle Path or Multi-Use Trail.....	1-4
Figure 1-2: Typical Class II Facility – Bicycle Lane .....	1-4
Figure 1-3: Typical Class III Facility – Signed Bicycle Route .....	1-4
Figure 1-4: Existing Bicycle Route Network .....	1-6
Figure 1-5: Recommended Near-Term and Long-Term Improvements to Bicycle Route Network.....	1-12
Figure 1-6: Near-Term Bicycle Route Network Improvement Clusters.....	1-13
Figure 1-7: Overlap of Existing Bicycle Route Network and Muni Network .....	1-21
Figure 1-8: Overlap of Existing Bicycle Route Network and Muni Bus-Only Lanes .....	1-23
Figure 2-1: Existing Bicycle Parking Facilities .....	2-3

## CHART

Chart 5-1: Bicyclist Injury Collisions in San Francisco: 1998-2006 ..... 5-2